

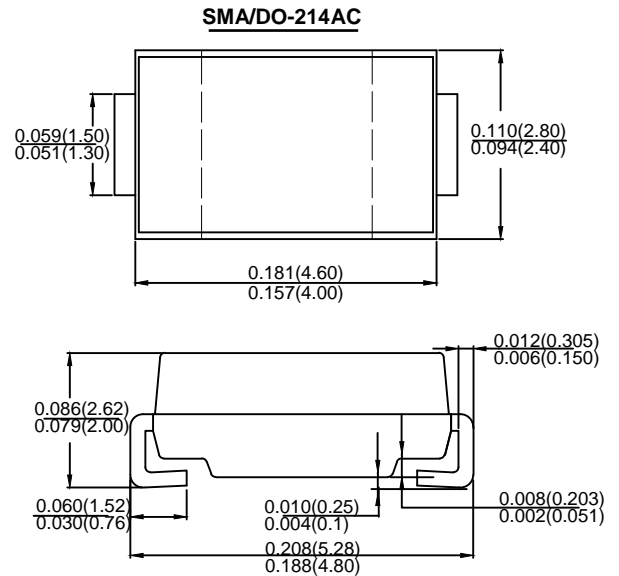
Surface Mount Schottky Rectifiers

Features

- Schottky Barrier Chip
- Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- Surge Overload Rating to 100A Peak
- Plastic Case Material has UL Flammability Classification Rating 94V-0

Mechanical Data

- Case: Molded plastic SMA
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Making: Type Number



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load

For capacitive load derate current by 20%

| Type Number | SYMBOL | SS 52 | SS 53 | SS 54 | SS 545 | SS 55 | SS 56 | SS 58 | SS 510 | SS 515 | SS 520 | SS 525 | Unit | |
|--|-----------------|-------------|-------|-------|--------|-------|-------|-------|--------|--------|--------|--------|---------------------------|----|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 20 | 30 | 40 | 45 | 50 | 60 | 80 | 100 | 150 | 200 | 250 | V | |
| Maximum RMS Voltage | V_{RMS} | 14 | 21 | 28 | 31 | 35 | 42 | 56 | 70 | 105 | 140 | 175 | V | |
| Maximum DC Blocking Voltage | V_{DC} | 20 | 30 | 40 | 45 | 50 | 60 | 80 | 100 | 150 | 200 | 250 | V | |
| Average Rectified Output Current @ $T_L = 100^\circ\text{C}$ | $I_{F(AV)}$ | 5.0 | | | | | | | | | | | A | |
| Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 100 | | | | | | | | | | | A | |
| Rating for fusing ($t < 8.3\text{ms}$) | I^2t | 41.50 | | | | | | | | | | | A^2s | |
| Forward Voltage @ $I_F = 5.0\text{A}$ (Note 1) | V_{FM} | 0.55 | | | 0.7 | | | 0.85 | | 0.92 | | 0.95 | V | |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$ | I_R | 0.1 | | | | | | 0.05 | | | | | | mA |
| At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$ | | 10 | | | | | | 5 | | | | | | |
| Typical Junction Capacitance | C_J | 28 | | | | | | | | | | | pF | |
| Typical Thermal Resistance per leg (Note 2) | $R_{\theta JA}$ | 88 | | | | | | | | | | | $^\circ\text{C}/\text{W}$ | |
| Operating Temperature Range | T_J | -55 to +150 | | | | | | | | | | | $^\circ\text{C}$ | |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | | | | | | $^\circ\text{C}$ | |

Note: 1. Pulse Test with $PW = 300\mu\text{sec}$, 1% Duty Cycle.

2. Mounted on P.C. Board with 5.0mm^2 (0.13mm thick) copper pad areas.

Fig. 1 Forward Current Derating Curve

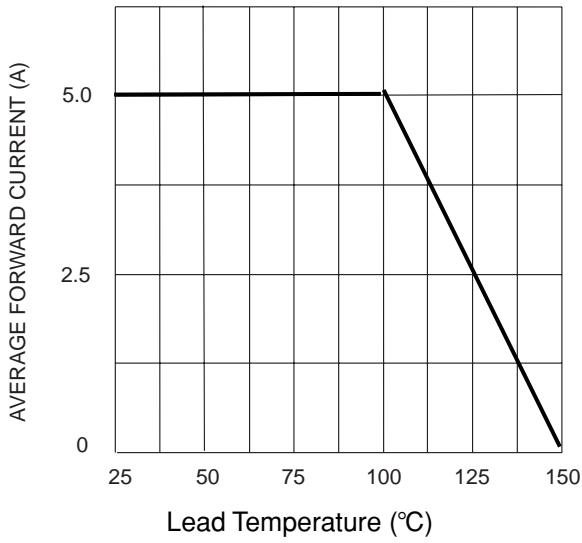


Fig. 2 Typ. Forward Characteristics

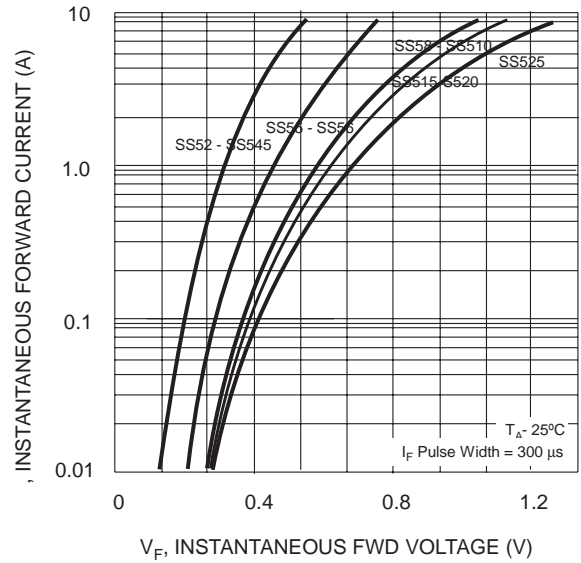


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

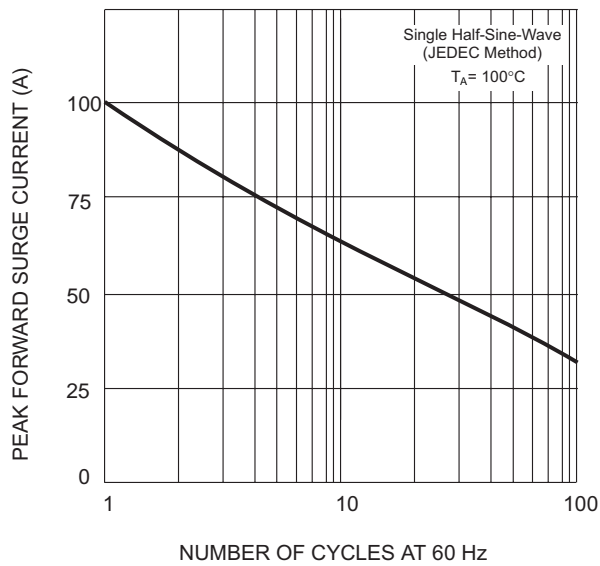
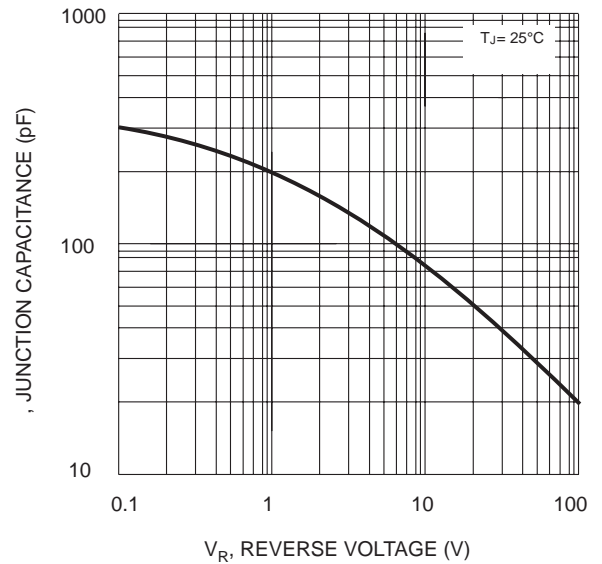


Fig. 4 Typical Junction Capacitance



SMA PAD LAYOUT

